

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number  
**WO 2005/082520 A1**

(51) International Patent Classification<sup>7</sup>: **B01J 19/08**,  
B05B 1/02, F27D 15/00

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
PCT/SG2005/000057

(22) International Filing Date: 28 February 2005 (28.02.2005)

(25) Filing Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

(30) Priority Data:  
200400806-6 28 February 2004 (28.02.2004) SG

**Published:**

— with international search report

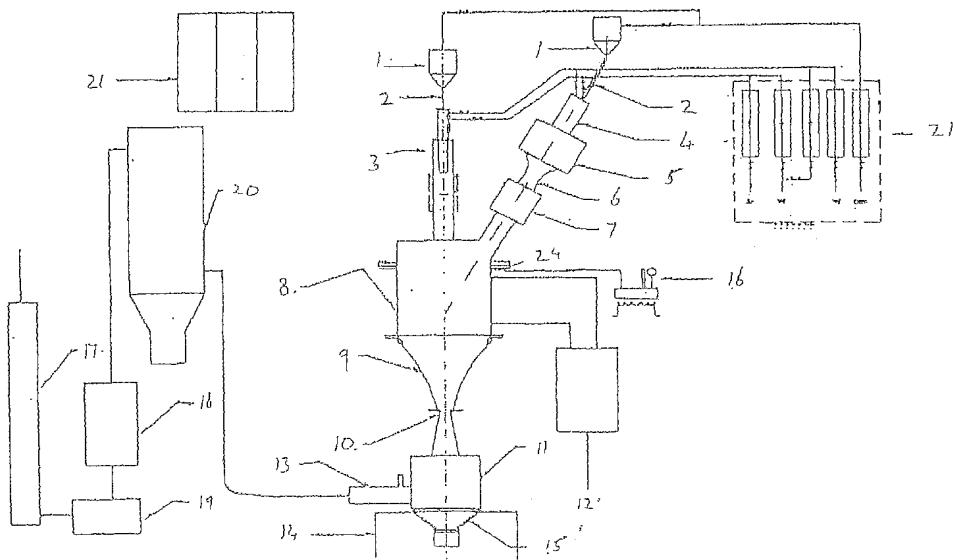
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

(54) Title: FINE PARTICLE POWDER PRODUCTION



(57) **Abstract:** The present invention relates to a vapourised flow quenching reactor for producing a fine-powder from one or more reactant materials. The reactor comprises a first heat creating means selected from one of a DC plasma torch (4) and RF plasma torch (3), a first reaction chamber (5) within which energized reactant materials react and a first convergent-divergent nozzle (6) for quenching the heated reactant materials from the first reaction chamber (5). The reactor also comprises a second reaction chamber (8) provided for congregation of nano particles formed therefrom and a second convergent-divergent nozzle (9) to deliver the nano particles to a collection chamber (11).

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